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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/898,639	07/03/2001	Satoshi Hasegawa	P/126-206	9675

7590 07/21/2006

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EXAMINER

AZAD, ABUL K

ART UNIT PAPER NUMBER

2626

DATE MAILED: 07/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/898,639

Applicant(s)

HASEGAWA ET AL.

Examiner

ABUL K. AZAD

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Amendment***

1. This action is in response to the communication filed on May 1, 2006.
2. Claims 1-12 are pending in this action.
3. The applicant's arguments with respect to claims 1-12 have been fully considered but they are not deemed to be persuasive. For examiner's response to the applicant's arguments or comments, see the detailed discussion in the Response to the Arguments section.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Tsurushima et al. (US 2001/0047256 A1).

As per claim 1, Tsurushima teaches, "an audio encoder including dividing means for dividing an input signal into a plurality of frequency bands and outputting a plurality sub-band signals, and performing compression-encoding for the individual sub-band signals outputted from said dividing means, wherein said audio encoder further

comprises bit-allocating means" (Fig. 3, elements 11, 12, 19, 20, 21, 16, 17 and 18; also at paragraph 0088);

"said bit-allocating means perform weighting in conformity to an equal-loudness curve that connects points representing pressure values of sounds having the same auditory loudness level for each frequency of the individual sub-band signals, and performing bit allocation to equalize a weighted quantization error in the individual sub-band signals, wherein the bit allocation is performed using a weighting table" (Fig. 14, elements 532 and 530 and also at paragraphs 0137 to 0149).

As per claim 2, Tsurushima teaches, "said bit-allocating means comprises a memory unit (Paragraph 016, ROM as memory unit), and

"said memory unit stores the weighting table, the weighting table specifying weighting coefficients conforming to said equal-loudness curve for the individual sub-band signals" (paragraphs 0139 and 0140).

As per claim 3, Tsurushima teaches, "said memory unit further stores the weighting table specifying weighting coefficients corresponding to encoding bit rates" (paragraphs 0139 and 0140),

"said bit-allocating means performs bit allocation to equalize a weighted quantization error corresponding to the encoding bit rate in the individual sub-band signals" (paragraphs 0146 and 0147).

As per claim 4, Tsurushima teaches, "said memory unit stores a plurality of weighting tables corresponding to the encoding bit rates, and said bit-allocating means

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selectively uses an appropriate one of said plurality of weighting tables” (paragraphs 0137 to 0148).

As per claim 5, Tsurushima teaches, “an audio-encoding method uses a psychoacoustics analysis incorporating the consideration of auditory-sense characteristics, such as limitations of human auditory capability and masking effects” (paragraph 0149).

As per claims 6-11, they are interpreted and thus rejected for the same reasons set forth in the rejection of claims 1-5.

As per claim 12, Tsurushima teaches, “an audio encoder including dividing unit for dividing an input signal into a plurality of frequency bands and outputting a plurality of sub-band signals, and performing compression encoding for the individual sub-band signals outputted from said dividing-unit, wherein said audio encoder further comprises a bit-allocating unit” (Fig. 3, elements 11, 12, 19, 20, 21, 16, 17 and 18; also at paragraph 0088),

“said bit-allocating unit performing weighting in conformity to an equal-loudness curve that connects points representing pressure values of sounds having the same auditory loudness level for each frequency of the individual sub-band signals” ” (Fig. 14, elements 532 and 530 and also at paragraphs 0137 to 0149), and

“performing bit- allocation to allow a sub-band signal having a frequency band that is most humanly perceptible to be allocated with the largest number of bits” (Paragraphs 107 to 115).

***Response to Arguments***

6. The applicant argues, "Claims 1, 6 and 7 explicitly require that "the bit allocation is performed using a weighting table." Applicants respectfully submit that this feature of the present invention is neither taught nor suggested by Tsurushima".

The examiner disagrees with the applicant's above assertion because Tsurushima teaches above limitation at paragraphs 139 and 140, particularly teaches, "it is noted that an operation of multiplying each spectral component SB by a pre-set weight function for taking into account the effects of masking is performed by the way of convolution". Now, if we connect Figure 13 with Figure 14, then we see bit allocation is directly related to preset weighting function (weighting table).

***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***Contact Information***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Abul K. Azad** whose telephone number is **(571) 272-7599**. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richemond Dorvil**, can be reached at **(571) 272-7602**.

Any response to this action should be mailed to:

**Commissioner for Patents**

**P.O. Box 1450**

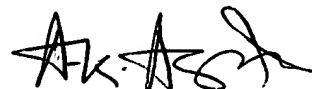
**Alexandria, VA 22313-1450**

Or faxed to: **(571) 273-8300**.

Hand-delivered responses should be brought to **401 Dulany Street, Alexandria, VA-22314** (Customer Service Window).

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

July 12, 2006

  
Abul K. Azad  
Primary Examiner  
Art Unit 2626